Montana Department of Public Health and Human Services
Diagnostic Testing for Suspect Influenza, 2019-20 Season
Laboratory Guidance

Appropriate treatment of patients with respiratory illness depends on accurate and timely diagnosis. Early diagnosis of influenza can reduce the inappropriate use of antibiotics and provide the option of using antiviral therapy.

Specimen Collection

- Specimens should be collected within 24-72 hours of symptoms onset. After 3 days, the viral shedding is reduced, and may no longer be detectable, depending on the assay.
- Respiratory Specimens (nasopharyngeal swabs, throat swabs, nasal swabs, combination NP/Throat swabs) must be submitted in Universal Transport Media (UTM) in a cold condition.
  Failure to submit in Universal Transport Media will cause the specimen to be rejected as an unsatisfactory specimen.
- **Do not** submit a swab or residual fluid that has been used for Rapid Influenza Diagnostic Tests (RIDTs); these will be rejected as an unsatisfactory specimen. A second swab must be collected and submitted in UTM.
- Universal Transport Media (UTM) can be ordered by contacting the Montana Public Health Laboratory (MTPHL) at 1-800-821-7284.
  NOTE: UTM media can be stored at room temperature before specimen collection. However, after the specimen has been introduced to the transport media, it is recommended that the specimen be stored at refrigerator temperature (NOT frozen), and transported to the MTPHL in a cold condition.
- Specimen can be transported via courier or the mail as a Biologic Substance, Category B, and should be received within 48 hours of collection.

Rapid Influenza Diagnostic Tests (RIDTs)

- The sensitivity of RIDTs for detecting Influenza, when compared with viral culture or RT-PCR, range from 50-70%, according to package inserts. A negative RIDT result does not rule out an Influenza virus infection. Specificities, as stated in package inserts range from 90-95%.
- Depending on the prevalence of Influenza in the community, positive and negative predictive values vary considerably. False positives are more likely to occur when disease prevalence is low, and false negatives are more likely to occur when disease prevalence is high.
- MTPHL will confirm positive RIDT results by PCR. If the specimen is positive for Influenza A, subtyping will be performed. If the specimen is positive for Influenza B, genotyping will be performed to identify the lineage.
- Specimens from patients testing negative for Influenza with a rapid test should be referred for more sensitive testing (RT-PCR) if determined by the clinician to be highly suspect of Influenza.

Fees

Diagnostic influenza testing is still being offered at a reduced rate for the 2019-2020 season. The fee for an Influenza A and B PCR screen (CPT code 87502) will be $55. All Influenza A positive specimens will be subtyped (CPT code 87503; $33) and all influenza B specimens will be genotyped (CPT code 87503; $33) to identify the lineage.
Viral culture is no longer available at MTPHL.

Requisition Form

- Order Influenza A and/or Influenza B PCR under the Molecular Testing section, **not under surveillance**.
- In addition to the regular information, please include:
  - Results of Rapid Influenza Testing (if known)
  - If the person is hospitalized, vaccinated, or other pertinent information

Turn Around Time

- Specimens received in the MTPHL by 8 a.m. (Mon – Fri) will have PCR screening completed by 5 p.m. on the same day of receipt, and in most instances, Influenza A subtyping and Influenza B genotyping will also be completed the same day.

If you have any questions, please call the Montana Public Health Laboratory at 1-800-821-7284.

9/20/2019